

REMARKS

Claims 1-13 are pending. No new matter has been introduced by this response.

1. Claim Rejections under 35 U.S.C. § 102

A. Independent Claim 1 And Its Dependent Claims 2-10

Claims 1-10 have been rejected under 35 U.S.C. § 102(b) over Huang (U.S. Pat. Pub. No. 2002/0136978), or under 35 U.S.C. § 102(e) over corresponding issued U.S. Pat. No. 6,855,501. The Applicants respectfully traverse these rejections based on the following remarks.

Huang discloses a device for transferring arrayed chemical compositions to a target substrate (see Abstract). The chemical compositions are printed to the target substrate (164) via an applicator unit that includes a photoreceptor (150) (see Fig. 5-7; and paragraph 0137, lines 1-4). The photoreceptor (150) is separate from the target substrate (164) (see Fig. 7). The photoreceptor (150) has a surface (151) where charges are formed for attracting the chemical compositions, such as nucleotide particles (see Fig. 7; and paragraph 0139, lines 1-16). The nucleotide particles are then transferred to the target substrate (164) (see Fig. 7; and paragraph 0139, lines 1-16). The target substrate (164), “upon which nucleic acid subunits are coupled, is, typically, a planar solid substrate” (see paragraph 0164, lines 1-3). The target substrate can be composed of “plastics, resins, silica or silica-based materials such as glass or silicon sheets” (see paragraph 0165, lines 5-7).

The Examiner asserts that part of the target substrate (164) in Huang functions as a support, a dielectric layer, and a chemically functional layer (Office Action, pages 2-3). The Examiner further asserts that that the photoreceptor (150) comprises a conductive layer on the surface (151) (Office Action, page 3). The Examiner also asserts that the charge patterns are formed on the surface (151) of the photoreceptor (151), referring to Fig. 7 (Office Action, page 3). However, as discussed above, Huang explicitly teaches that the target substrate (164) is separated from the photoreceptor (150), which is

necessary to carry out the electrophotographic printing process (see Figs. 5-7; and paragraphs 0137-0139). In other words, Huang does not disclose the asserted support, conductive layer, dielectric layer, and chemically functional layer as being part of the same substrate, as required by independent claim 1. Rather, these asserted parts are located on either the target substrate (164) or the photoreceptor (150), which are two separate parts.

In view of the above remarks, the Applicants respectfully submit that Huang does not teach or suggest all the claim limitations as recited in independent claim 1. Accordingly, the rejection against independent claim 1, and thus the rejections against claims 2-10, which all depend from independent claim 1, are improper and should be withdrawn.

B. Independent Claims 11-13

Independent claims 11-13 have been rejected under 35 U.S.C. § 102(b) over Huang (U.S. Pat. Pub. No. 2002/0136978), or under 35 U.S.C. § 102(e) over corresponding issued U.S. Pat. No. 6,855,501. The Applicants respectfully traverse these rejections based on the following remarks.

The Examiner asserts that part of the conductive layer on the surface (151) of the photoreceptor (150) functions as a photoconductive layer (Office Action, pages 6-9). However, as discussed above in section 1A, the asserted support, conductive layer, photoconductive layer, and chemically functional layer are not part of the same substrate, as required by independent claims 11-13.

The Examiner further asserts that Huang discloses electrostatic charge patterns formed on the surface (151) of the photoreceptor (150) influence the movement of charged droplets in a liquid medium, again referring to Fig. 7 (Office Action, page 6-9). As discussed above in section 1A, Huang explicitly teaches that the electrostatic charge patterns are formed on the surface (151) of the photoreceptor (150), which is separate from the target substrate (164). In other words, the asserted electrostatic charge patterns

are not formed on the target substrate to influence the movement of charged droplets in a liquid medium on the target substrate (164).

In view of the above remarks, the Applicants respectfully submit that Huang does not teach or suggest all the claim limitations as recited in independent claims 11, 12, and 13. Accordingly, the rejections against independent claims 11, 12, and 13 are improper and should be withdrawn.

2. Conclusion

Based on the above remarks, the Applicants respectfully submit that the claims are in condition for allowance. The examiner is kindly invited to contact the undersigned agent to expedite allowance.

Respectfully submitted,

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